



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,820	11/20/2001	Michael Pittroff	173/50483	8696

23911 7590 03/15/2002

CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

SPITZER, ROBERT H

ART UNIT	PAPER NUMBER
----------	--------------

1724

6

DATE MAILED: 03/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action SummaryApplication No.
09/988,820Applicant(s)
Pittroff et al.Examiner
Robert H. SpitzerArt Unit
1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 _____ is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 20) ☐ Other:

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3- 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 is indefinite because it recites " at least two separating membrane stages" without correlation to the " at least one separating membrane" previously recited in claim 1. Claim 4 is indefinite because it recites "three separating membrane stages" without any correlation to the " at least two separating membrane stages" previously recited in claim 3 or the " membrane" recited in claim 1. Claim 5 is indefinite because there is no direct antecedent basis for the recitations of "the gas insulated line" or " the used line" in claim 1.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily

published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claim 7 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by the structure Tamata et al. (6,004,377)

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1,3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (5,785,741) in view of Sanders, Jr. et al. and Li et al. (5,855,647). The claims differ from the process of Li et al. (5,785,741) in specifying the specific glassy membrane used to separate the SF₆ and N₂, and in the specific amount of SF₆ being between 5 and 50 vol.%. Sanders Jr. et al. show the specific glassy membrane being recited in claim 1. Li et al. (5,855,647) show that the SF₆ can be in an admixture with SF₆ up to 20 vol. % and still be separated by membrane permeation of the N₂. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize the specific membrane of Sanders, Jr. et al. as the separations membrane in Li et al. ('741), as one glassy polymer membrane would be expected to function in place of another such membrane, and to have the SF₆ be present up to 20 vol.% in the gas mixture of Li et al. ('647), that such gas mixtures can be separated through a membrane permeation stage.

7. Claims 2,5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (5,785,741) in view of Sanders, Jr. et al. and Li et al. (5,855,647) as applied in the paragraph directly above, further in view of Tamata et al. (6,004,377). The claims differ from the process of modified Li et al. ('741) in the gas mixture source being a gas enclosure. Tamata et al. ('377) show that SF₆ from a gas enclosure can be separated by use of a membrane permeation step. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize the process of modified Li et al. ('741) to treat a gas mixture containing SF₆ obtained from a gas enclosure, in view of the showing of Tamata et al. ('377).

8. The remaining references listed on both the PTO-892 and the PTO-1449 show art of interest.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H. Spitzer whose telephone number is (703) 308-3794. The examiner can normally be reached on Monday - Thursday 5:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Simmons can be reached on (703) 308-1972. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Application/Control Number: 09/988,820

Page 5

Art Unit: 1724

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Robert H. Spitzer/ng
March 13, 2002

Robert H. Spitzer
ROBERT H. SPITZER
PRIMARY EXAMINER
T.C. 1700
March 13, 2002